Software Directories for Microcomputers:
An Annotated Bibliography

by

Thomas C. Stilwell

Working Paper No. 9   1983

MSU INTERNATIONAL DEVELOPMENT PAPERS

Eric W. Crawford, Carl K. Eicher, and Carl Liedholm,
Co-Editors

The MSU International Development Paper series is designed to further the comparative analysis of international development activities in Africa, Latin America, Asia, and the Near East. The papers report research findings on historical, as well as contemporary, international development problems. The series includes papers on a wide range of topics, such as alternative rural development strategies; nonfarm employment and small-scale industry; housing and construction; farming and marketing systems; food and nutrition policy analysis; economics of rice production in West Africa; technological change, employment, and income distribution; computer techniques for farm and marketing surveys; and farming systems research.

The papers are aimed at teachers, researchers, policy makers, donor agencies, and international development practitioners. Selected papers will be translated into French, Spanish, or Arabic.

Individuals and institutions in Third World countries may receive single copies free of charge. See inside back cover for a list of available papers and their prices. For more information, write to:

MSU International Development Papers
Department of Agricultural Economics
Agriculture Hall
Michigan State University
East Lansing, Michigan 48824-1039
U.S.A.

SOFTWARE DIRECTORIES FOR MICROCOMPUTERS:

AN ANNOTATED BIBLIOGRAPHY*

By

Thomas C. Stilwell

Visiting Associate Professor
Department of Agricultural Economics
Michigan State University

1983

PREFACE

There is a worldwide revolution in small computer technology underway and scientists are struggling to find ways to utilize this new technology to help solve development problems in the Third World. We are pleased to announce a number of papers on microcomputers in international agriculture will be published in our International Development Papers series. The aim of these papers is to provide timely information about the rapidly changing state of the new micro-processing technology and its use in research. The papers are also intended as guides to agricultural and social scientists on choosing, installing, and maintaining microcomputer hardware and software systems in developing countries.

Some of the papers will also document field experiences of selected established projects using new data processing hardware and software. Other papers will concentrate on developing guidelines for establishing and maintaining successful microcomputer and/or programmable calculator installations for agricultural research in developing countries.

The present paper is the third of these new papers. It is based on staff work by faculty members and graduate students of the Department of Agricultural Economics, Michigan State University, on cost-effective data collection, management, and analysis techniques for developing country applications. This activity is carried out under the terms of reference of the Alternative Rural Development Strategies Cooperative Agreement— DAN-1190-A-00-2069-00—between the Office of Multi-Sectoral Development, Bureau of Science and Technology of the United States Agency for International Development and the Department of Agricultural Economics at Michigan State University.

The author of this paper, Dr. Thomas Stilwell, has developed considerable experience in using microcomputers in agronomic research through his work with CIMMYT (International Maize and Wheat Improvement Center) and the Consortium for International Development in Bolivia. Dr. Stilwell is currently a Visiting Associate Professor at Michigan State University. He will be authoring other papers on microcomputers which will be published in our IDP series.

Readers are encouraged to submit comments about these new papers on microcomputers and to inform us of their activities in this area. Write directly to: Dr. Michael T. Weber, Acting Director, Alternative Rural Development Strategies Cooperative Agreement, Department of Agricultural Economics, Michigan State University, East Lansing, Michigan 48824-1039.

Eric W. Crawford, Carl K. Eicher, and Carl Liedholm
Co-Editors
MSU International Development Papers

TABLE OF CONTENTS

INTRODUCTION

This listing of directories is intended for the researcher in a developing country attempting to find suitable software for his/her microcomputer. All of the directories included here are printed directories. Although several on-line software data bases do exist in the USA, they are not included here because they are not available to overseas users as a practical alternative.

While some directories attempt to list all known software, others aim for specific users such as businessmen or farmers. As a general rule, those that aim for a specific reader have better listings than the general directories. The amount of software available is staggering and no general listing can be complete and useful at the same time. We have generally attempted to exclude "directories" published by commercial establishments that also sell software since these are usually incomplete.

One fact of life is that each directory is out of date by the time it is published. New software is being released at such a rate that it is impossible to print new directories fast enough. Some directories are also one-time publications due either to economics, staff changes, or just plain frustration at trying to keep up. If you are not concerned with purchasing the best, newest, most powerful software package, then a directory is for you. If you must have the state-of-the-art software for a specific application, then it is best to subscribe to 10-12 magazines with air mail delivery. Then be prepared to debug someone's new, state-of-the-art masterpiece.

EXPLANATION OF DIRECTORY LISTINGS

Name

The name of the directory is reproduced as nearly as possible to resemble that name given on the front cover.

Vendor

The vendor shown is, to the best of our knowledge, the principal vendor. Where possible, secondary vendors and duplicate listings have been eliminated.

Price

The price shown is for delivery within the country of origin and is given in units of currency of that country.

Pages and Programs

In most cases, the number of pages and number of programs included in the directory are noted. This serves as some indication of the size and completeness of the directory. For example, if a directory has 1,688 programs listed in only 20 pages (Index to CP/M Software), it is easy to guess that the amount of information is not as complete as a directory with 484 programs in 404 pages (Addison-Wesley). Unfortunately, many directories do not number their pages and counts of programs contained were either difficult or impossible. For this reason, counts like 400+ or "many" are used where exact numbers could not be reported.

Description

A short description is given of the directory in order to give a bit of its "flavor" and usefulness for agriculturally oriented users. In most cases, this is a description resulting from actually using or reviewing the directory. In a few cases (the most expensive directories), this information has been taken from advertising literature.

Indexing

The methods of cross-indexing are noted to give an idea of the ease of finding a software package for your particular needs. In some cases, the directory only has the programs classified by general areas. If you are looking for a specific scientific application, you may need to read through the entire directory to find something that fits your needs. For only a few hundred programs, this is not too difficult but if there are 2,000-3,000 programs listed, this could be a long-term job. With more types of cross-indexing, your task becomes easier.

Abbreviations

Some or all of the following abbreviations have been used in this listing.

A$	Australian dollars
Bfr	Belgian Francs
BrSt	British Sterling (Pounds)
Cards	Peripheral cards
Cass	Cassette or cassette recorder/player
Cn$	Canadian dollars
CPU	Central Processing Unit

CRT	Cathode Ray Tube (video display system)
Cr$	Cruzeiro (Brazil)
Disk	Disk drives or floppy disk
DM	Deutsch Marks (W. German Marks)
FF	French Francs
HK$	Hong Kong dollars
Joystick	Game control paddle
List	Program listing
MN$	Moneda Nacional (Mexico)
Monitor	Video display system
NeFr	Francs (Netherlands)
NZ$	New Zealand dollars
P$	Philippine pesos
RAM	Random Access Memory
ROM	Read Only Memory
Tape	Cassette or cassette recorder/player
US$	United States dollars
Video	Video display system

DIRECTORY LISTINGS

3 A COMPUTER PRODUCTS CATALOG

Vendor: 721 Pike Street   Price: US$ 2.00 as of Nov. 82
Cheyenne, Wyoming 82009   It has 144 pages listing 125 vol. of
USA   programs.

The 3 A (Apple Avocation Alliance) is a commercially oriented Apple users group. The catalog lists much commercial software and hardware but it also lists public domain software for Apple computers which cost US$ 1.00 plus the cost of a diskette for each volume ordered. The 33 pages of listings give only the disk directory listing for each diskette. Some of the 21 subject areas are Business & Finance, Math & Statistics, Passion (Sex), and Utility. These are normal public domain programs and little or no debugging has been done but it is still an excellent source of programs. (Programs are indexed by program type and diskette.)

ADDISON-WESLEY BOOK OF APPLE COMPUTER SOFTWARE

Vendor: 16720 Hawthorne Blvd.   Price: US$ 19.95 as of Oct. 82
Lawndale, California 90260   It has 404 pages listing 484
USA   programs.

A very well-done directory of programs. It includes an evaluation of each program plus occasional reproductions of the screen. Also, it has very short sections on some types of Apple hardware. Although the number of programs included is very limited, the evaluation of each one makes it worthwhile. (Programs are indexed by name within program type.)

AGPROS DIRECTORY

Vendor: Box 64539   Price: US$ 90.00 as of Oct. 82
Lubbock, Texas 79464   It has 600+ pages listing 500+
USA   programs.

This is a looseleaf directory in three volumes (Crops, Business/Finance, and Livestock). All are farmer-oriented programs for Radio Shack and Apple computers. The descriptions are only fair but monthly updates keep it very current. This would be very useful for farmers who need software. The price is US$ 90 for a single set of the three directories. For US$ 144, you receive the three directories plus monthly updates for each. (Programs are indexed by program type.)

AGRICULTURAL MICROCOMPUTING SOFTWARE CATALOG

Vendor: 45 Dunfield Ave. - #1119   Price: ?
Toronto, Ontario M4S 2H4   It has ? pages listing ? programs.
Canada

No more detailed information available at this time.

AGRICULTURAL SOFTWARE DIRECTORY

Vendor: Agriculture Dept.   Price: US$ 18.69 as of Nov. 82
3426 E. 242nd St.   It has 191 pages listing 487
Elko, Minnesota 55020   programs.
USA

The listings are limited to software for Apple, Radio Shack, CP/M, and others. Programs are for farmer uses such as ration formulation and bookkeeping. Each program in a package is described by 4-6 lines plus hardware requirements, price, and supplier. It has the best descriptions of

the farmer-oriented software directories reviewed. Although some simple programs only cost US$ 10, most are over US$ 300 with a few costing US$ 2000 (not for a subsistence farmer). (Programs are indexed by program type and computer.)

APPLE FREELOADER

Vendor: P.O. Box 57221   **Price:** US$ 6.95 as of Nov. 82
Washington, D.C. 20037   It has 72 pages listing 3,500+
USA   programs.

This is a listing of public domain software for Apple computers. The listing of programs is divided into several types including Business & Finance and Math & Statistics. Each program listing is simply a program name, type (Assembly, Basic, Applesoft, etc.), length, and program source. The programs may be purchased in sets for US$ 75 each or as program listings for US$ 20 each type. There are also very useful listings of Apple users groups, publications, and catalogs. It is one of the best listings of public domain software on the market. (Programs are indexed by program name and type.)

ASIA DP INDEX AND SOFTWARE REGISTER

Vendor: Locked Bag Service No. 8   **Price:** US$ 25.00 as of Feb. 83
Jurong Town Post Office   It has 246 pages listing ?
Singapore 9161   programs.
Singapore

This is a directory of commercial sources of hardware and software in seven Asian countries: Hong Kong, Indonesia, Malaysia, Philippines, Singapore, Taiwan, and Thailand. All levels of computers are included, although most of the listings are for mini and microcomputers. Each company is listed with its address, manager's name, number of staff, types of computers, and types of software offered. If you are working in Asia, this should be on your desk. (Programs are indexed by source and country.)

THE BLUE BOOK FOR THE APPLE COMPUTER

Vendor: 5245 W. Diversey Ave.   **Price:** US$ 24.95 as of Jan. 83
Chicago, Illinois 60639   It has 464 pages listing 2,088
USA   programs.

This directory includes mostly software but also has a section on equipment (like an Arabic Apple and the bacterial colony counter). The software descriptions range from one line to nearly half a page, and include minimal hardware and price information for the package. The descriptions appear to be summaries of the vendor literature and not results of using the software. Among the 57 software types of interest are Statistics, Graphics, Word Processing, Data Base Management, and Utilities. In summary, it is a very useful directory for Apple software and hardware. (Programs are indexed by program name and type.)

CBASIC SOFTWARE DIRECTORY

Vendor: P.O. Box 579   **Price:** US$ 7.50 as of Oct. 82
Pacific Grove, Cal. 93950   It has ? pages listing ? programs.
USA

No more information available at this time.

COLOR COMPUTER CATALOG

Vendor: 3705 Mary Ellen, N.E.   **Price:** US$ 12.00 as of Feb. 83
Albuquerque, N.M. 87111   It has ? pages listing 1,000+
USA   programs.

There are two editions per year. The price shown is for a single edition.

COMMODORE SOFTWARE ENCYCLOPEDIA

Vendor: 681 Moore Road   **Price:** US$ 5.00 as of Oct. 82
King of Prussia, Pa. 19406   It has 406 pages listing 950
USA   programs.

This directory of Commodore software, hardware, and publications also includes some software from Canada and Europe. The program descriptions include a 2-10 line description, hardware requirements, and price. The major classifications are Business, Word Processing, Utilities, Engineering, Personal, Games, Vic 20, and Education. There are few statistical programs listed.

CP/M COMPATIBLE SOFTWARE CATALOG

Vendor: P.O. Box 579   **Price:** US$ 10.00 as of Oct. 82
Pacific Grove, Cal. 93950   It has 104 pages listing 0
USA   programs.

Although the title says it is a software catalog, it is really a catalog of sources of CP/M software. The sources are divided into US and non-US vendors. Each vendor is listed with their address and a short description which may describe their major CP/M programs or simply give the types of software sold. The vendors are also listed by type of software (word processor, accounting, etc.) and languages (PL/1-80, CBASIC, etc.). Although useful to find non-USA sources of software, there are better directories for CP/M software.

CPMUG LIBRARY

Vendor: 1651 Third Avenue   **Price:** US$ 6.00 as of Dec. 82
New York, New York 10028   It has 80 pages listing 85 vol. of
USA   programs.

The CP/M Users Group maintains an extensive collection of CP/M public domain software. The software is on 8-inch IBM format disks and the cost is US$ 8.00 each. In general, each disk tends to have software of a similar nature such as games, utilities, etc. Most of the software is classified as utilities and there are few applications programs. (Programs are indexed by volume.)

DATAPRO DIRECTORY OF MICROCOMPUTER SOFTWARE

Vendor: 1805 Underwood Blvd.   **Price:** US$ 400.00 as of Oct. 82
Delran, N.J. 08075   It has 1,576+ pages listing many
USA   programs.

One of the most expensive directories; probably overpriced. The program listing is incomplete but there is very good information on those programs included. The best listings are for accounting and other commercial applications but the agricultural software section is unbelievably incomplete. The two volumes include monthly updates for the 46 sections and 27 application areas covered. (Programs are indexed by program name, source, and type.)

DATA WORLD

Vendor: 660 N. Park Drive   **Price:** US$ 610.00 as of Oct. 82
Pennsauken, N.J. 08109   It has 3,000+ pages listing many
USA   programs.

The price includes monthly updates. There are four volumes in the basic set: Mainframes, Mini and Microcomputers, Applications and Systems software, and Data Communications. Both hardware and software are included. The emphasis is on large computers with little attention given to micros. (Programs are indexed by program name.)

DIRECTORY OF INDEPENDENT IBM PC HARDWARE & SOFTWARE
Vendor: P.O. Box 22
Bensalem, Pa. 19020
USA
Price: US$ 29.95 as of Mar. 83
It has ? pages listing 300
programs.

No more information available at this time. (Programs are indexed by program type.)

GUIDE DES PROGRAMMES POUR MICRO-ORDINATEURS
Vendor: 6, rue Ancelle
92525 Neuilly
France
Price: FF 125.00 as of Dec. 82
It has 250 pages listing 1,000+
programs.

The Guide des Programmes is a French directory of software available in France. There are very few listings of agricultural or statistical analysis programs. Each program entry has a 1-5 line description, computer type, hardware needed, price, and the vendor. Although there seems to be relatively few software packages, they are well cross-indexed. With a few more additions, this would be a valuable directory. (Programs are indexed by source, type, and computer.)

GUIDE TO SOFTWARE
Vendor: Altos Computer Systems
2360 Bering Drive
San Jose, Calif. 95131
USA
Price: US$ 5.00 as of Jan. 83
It has 90 pages listing 271
programs.

This directory is for Altos compatible software. The sections of the directory are Operating Systems, Languages, Communications, Special Functions, and Application Software. Each software package has a 1-5 line description, price, operating system requirements, and vendor address. Nearly all software listed are for commercial applications such as accounting and no agricultural packages are listed. (Programs are indexed by vendor.)

HP-80 SERIES SOFTWARE CATALOG
Vendor: 1010 NE Circle Blvd.
Corvallis, Oregon 97330
USA
Price: US$ 12.95 as of Sept. 82
It has 601 pages listing 527
programs.

A very useful catalog for HP owners. It is divided into HP programs and programs offered by persons other than HP. In general, the program descriptions are good; a full page being devoted to each program. The major sections are Probability/Statistics and Business/Finance. Cross-indexing is good. (Programs are indexed by name, type, and computer.)

IBM PC EXPANSION & SOFTWARE GUIDE
Vendor: 7960 Castleway Drive
Indianapolis, Ind. 46250
USA
Price: US$ 19.95 as of Oct. 82
It has 273 pages listing 448
programs.

This is a hardware/software directory but also includes sections on periodicals, books, supplies, stores, and user groups for the IBM PC. A very useful book for the IBM PC user. Each program description includes hardware requirements, a reasonably complete description of functions, the price, and source. There is also advertising, a section with spreadsheet examples, and descriptions of several operating systems. (Programs are indexed by name, source, and type.)

ICP SOFTWARE DIRECTORY
Vendor: 9000 Keystone Crossing   **Price:** US$ 550.00 as of Dec. 82
Indianapolis, Ind. 46240   It has ? pages listing ? programs.
USA

This is a series of volumes with each volume directed toward a specific type of software such as data processing, business accounting, etc. It includes software for micro, mini, and mainframe computers. (Programs are indexed by name, type, source, and computer.)

INDEX TO CP/M SOFTWARE
Vendor: Box 5429   **Price:** US$ 10.00 as of Sept. 82
Santa Monica, Cal. 90405   It has 20 pages listing 1,688
USA   programs.

As a software directory, this leaves much to be desired. The listing for each software package consists of a name (30 characters or less) and occasionally 11 characters of additional information such as operating system and price. An associated vendor number indicates where to write for more information. Hopefully, future editions will include some description of the software so the reader can tell what Miracle, Star*Trac, or SAM do. (Programs are indexed by program type.)

INVENTORY OF AGRICULTURALLY ORIENTED SOFTWARE IN AUSTRALIA
Vendor: Queensland Dept. of   **Price:** A$ 7.00 as of Dec. 82
Primary Industries   It has 233 pages listing 230
GPO Box 46   programs.
Brisbane 4001,
Australia

This directory is very well cross-indexed so it is not difficult to find something which can serve your purpose. The listings include software for micros, minis, and mainframes. There are a total of 110 listings for microcomputers including quite a few for North Star computers. The program descriptions are brief but give enough information so that it is possible to select good candidates to write for more information. Perhaps the only problem is that some addresses are not as complete as they should be. (Programs are indexed by source, type, computer, and language.)

LIST
Vendor: P.O. Box 2905   **Price:** US$ 12.50 as of Apr. 83
Clinton, Iowa 52735   It has 400 pages listing 3,000+
USA   programs.

List is a quarterly publication. The price shown is for one issue only. All types of software are included. Each program listing includes a short (2-3 words) description of the application type, systems for which it is available, a short description of its functions, and the vendor's address. Unfortunately, most of the listings do not include any descriptions. There are also magazine type articles such as "What You Should Expect From A Software Vendor" and "How To Choose A Printer For Your Personal Computer." This is a new directory and future issues may change contents. (Programs are indexed by type, computer, and operating system.)

MICROCOMPUTER MARKET PLACE
Vendor: Suite 23   **Price:** US$ 75.00 as of May 83
2248 Broadway   It has ? pages listing ? programs.
New York, New York 10024
USA

The Microcomputer Market Place is a directory of both software and hardware vendors. No other information available at this time.

MICROPROCESSOR SOFTWARE D.A.T.A. BOOK

Vendor: P.O. Box 26875   **Price:** US$ 120.00 as of Dec. 82
San Diego, Calif. 92126   It has ? pages listing ? programs.
USA

This directory is published semi-annually. Software is classified by the type of microprocessor and then by name. Each software entry is described by the language used, hardware requirements, memory requirements, and the usual vendor description. (Programs are indexed by program type.)

NORTH STAR COMPATIBLE SOFTWARE DIRECTORY

Vendor: North Star Computers, Inc.   **Price:** US$ 5.00 as of Jan. 83
14440 Catalina Street   It has 54 pages listing 783
San Leandro, Cal. 94577   programs.
USA

This directory is simply a listing of vendor names and software names with no other description of what the packages do. At best, it serves as a classified list of names and addresses of vendors where you can write for information. It does note several software packages in languages such as Icelandic, German, Afrikaans, Dutch, and Danish. Where else can you find a Hebrew word processor? The lack of detail is balanced by the fact that it is the only directory for North Star software. (Programs are indexed by program source, type, US or foreign.)

ONLINE MICRO-SOFTWARE GUIDE AND DIRECTORY, 1983/84

Vendor: 11 Tannery Lane   **Price:** US$ 40.00 as of June 83
Weston, CT 06883   It has 346 pages listing 736
USA   programs.

The Online Directory has several short articles on software selection. The cross-reference indices are not the best. The publisher forgot to cross-index the software by application area and had to print up a separate addendum for this. The descriptions of each software package are fairly complete and well done. (Programs are indexed by name, source, and type.)

PC CLEARINGHOUSE SOFTWARE DIRECTORY

Vendor: 11781 Lee Jackson Highway   **Price:** US$ 29.95 as of June 83
Fairfax, Virginia 22033   It has 816 pages listing 21,000
USA   programs.

The PC Clearinghouse Software Directory was previously known as the Software Vendors Directory. The five application areas covered are General Business, Programming Tools, Educational, Home & Personal Use, and Specialized Vertical Market software. Within the application area, the programs are classified by computer. The information on each program includes the vendor's name, operating system, and price. A separate section of the directory gives vendor addresses. The lack of even a minimal description of program function is a major problem. (Programs are indexed by type and computer.)

PC SOFTWARE BUYERS GUIDE

Vendor: 1701 K St., NW - #800   **Price:** US$ 39.00 as of Oct. 82
Washington, D.C. 20006   It has ? pages listing ? programs.
USA

This is a catalog specializing in IBM PC products. It is in diskette form and needs Wordstar to read the files. In addition to software description, there are comparison charts for spreadsheets, communications, and word processors. (Programs are indexed by program type.)

PERSONAL SOFTWARE DIRECTORY

Vendor: P.O. Box 426   **Price:** US$ 19.95 as of ?
Feeding Hills, Ma. 01030   It has ? pages listing ? programs.
USA

No more information available at this time.

ROSEWARE DIRECTORY

Vendor: Suite 323   **Price:** US$ 30.00 as of May 83
1025 Bayley Ave.   It has ? pages listing ? programs.
Los Angeles, Cal. 90024
USA

The Roseware Directory is a disk-based directory of IBM PC products. Operation is menu-driven and includes a provision for printout of a mailing list of selected vendors. It requires an IBM PC with one disk drive and a printer.

SINCLAIR COMPUTER FAMILY SOURCE BOOK

Vendor: P.O. Box 936   **Price:** US$ 8.20 as of Nov. 82
Norfolk, Virginia 23501   It has 99 pages listing 448
USA   programs.

In addition to software, this directory lists books, magazines, and hardware sources for Sinclair computers in the USA and Canada. Each software package is described by 1-7 lines of text, hardware requirements, and its price. Most packages cost US$ 4.00-5.00 for a listing or US$ 10.00-20.00 for a cassette. None are over US$ 100.00. Unfortunately, there are few statistical packages for Sinclair computers. Maybe someone out there can add a few. (Programs are indexed by program type.)

SKARBECK SOFTWARE DIRECTORY, 2nd Edition

Vendor: 11990 Dorsett Rd.   **Price:** US$ 11.95 as of Sept. 82
Maryland Hts., Md. 63043   It has 435 pages listing 1,053
USA   programs.

This directory is dedicated to the world of Apple software. The book is divided into ten sections: Business, Data Base, Education, Entertainment, Graphics, Home & Personal, Programming Aids & Utilities, Special Interest, Vertical Market, and Word Processing. Each package is well described, some more completely than others. For the price, this is one of the better Apple directories available. (Programs are indexed by program name and type.)

SMALL COMPUTER PROGRAM INDEX

Vendor: 21 Beechcroft Road   **Price:** BrSt 15.00 as of Jan. 83
Bushey Herts   3D2 2JU   It has 32 pages listing 399
Great Britain   programs.

This is a bi-monthly directory of program listings which have appeared in magazines or books. Each entry is classified by name and type of software. A short 1-3 line description of the program functions is included plus the magazine or book source and the computer type. For the person who needs software but is blocked by customs problems with mailing cassettes or diskettes, this is an essential reference. The annual subscription is 15 Pounds. The Nov. 82 issue had 399 program sources in 32 pages. (Programs are indexed by program name and type.)

THE SOFTWARE CATALOG: MICROCOMPUTERS

Vendor: 52 Vanderbilt Ave.　　　　**Price:** US$ 69.00 as of Jan. 83
New York, New York 10017　It has ? pages listing 10,000+
USA　　　　　　　　　　　programs.

The price shown is for a single copy. There are at least four editions each year. It utilizes the ISPN (International Software Program Number) system to classify programs. In addition to very extensive cross-referencing, each software package description includes a 5-10 line description plus release date, price, operating systems, and hardware requirements. This directory is also available as an on-line data base. (Programs are indexed by name, source, type, computer, O/S, etc.)

SOFTWARE/HARDWARE DIRECTORY & REF. GUIDE FOR THE IBM PC

Vendor: P.O. Box 748　　　　**Price:** US$ 10.00 as of Oct. 82
Quincy, Illinois 62301　It has ? pages listing ? programs.
USA

No more information available at this time.

SOURCEBOOK

Vendor: 1807 Glenview Road　　**Price:** US$ 125.00 as of Nov. 82
Glenview, Illinois 60025　It has 504 pages listing 1,300+
USA　　　　　　　　　　programs.

Although many program listings are for minicomputers, there are a few for Apple, Atari, and TRS-80 microcomputers. These programs are definitely for larger business users since some software packages approach US$ 20,000. Understandably, most of the programs center around commercial applications, not scientific. It is not one of the better directories for agriculture. (Programs are indexed by name, source, type, and computer.)

TRS-80 APPLICATIONS SOFTWARE SOURCEBOOK (Vol. III)

Vendor: P.O. Box 17400　　　**Price:** US$ 1.95 as of Oct. 82
Ft. Worth, Texas 76102　It has 383 pages listing 2,330
USA　　　　　　　　　　programs.

This gives a very brief 3-line description of each program plus information about system requirements and ordering information. Very useful directory considering the price. Many bargain programs for the Radio Shack Model I. (Programs are indexed by program source and type.)

UCSD P-SYSTEM APPLICATION CATALOG

Vendor: 9494 Black Mountain Rd.　**Price:** ?
San Diego, Calif. 92126　It has 42 pages listing 140
USA　　　　　　　　　　programs.

This is definitely not an exhaustive listing. There is only a fair description of each program. (Programs are indexed by program type.)

UPDATED INVENTORY OF AGRICULTURAL COMPUTER PROGRAMS

Vendor: Univ. of Florida　　　**Price:** Free as of Dec. 82
Gainesville, Fl. 32611　It has 186 pages listing 639
USA　　　　　　　　　　programs.

This directory is a listing of programs for use by extension personnel and farmers which have been developed at US land grant universities. Although most have been tested and used in the field, some are obviously still being debugged. A few have good documentation but most are poor. A strong point for these programs is that many are free to other universities if a

diskette is supplied. The descriptions are very brief (36 characters long) but enough to give an idea of its function. It is an essential directory for agricultural extension microcomputer users. (Programs are indexed by program type and computer.)

VAN LOVE'S SOFTWARE DIRECTORY

Vendor: 7899 Mastin Drive   **Price:** US$ 24.95 as of Oct. 82
Overland Park, Ks. 66204   It has 1,070+ pages listing 2,426
USA   programs.

Van Love's Software Directory, Vol. II, is for the Apple II and III user. The major sections are Agriculture, Apple III, Business, Communications, CP/M, Data Base, Education, Engineering, Games, Graphics, Mailing List, Mathematics, Medical, Music, Personal, Programming, Special Interest, Time Sharing, and Word Processing. The program descriptions vary from a few lines to two pages and sometimes include information on hardware requirements and price. There are good sections for agricultural and statistical software.

ZENITH DATA SYSTEMS SOFTWARE DIRECTORY

Vendor: 1000 Milwaukee Ave.   **Price:** US$ 25.00 as of Dec. 82
Glenview, Illinois 60025   It has 602 pages listing 512
USA   programs.

The Zenith Directory is a large directory and expensive to mail. There are 28 software classifications. Those of most interest are Data Base Systems, Graphics, Information Management, Statistics, Utilities, and Word Processing. The software descriptions range from one line to a full page plus information on operating system, hardware required, and formats provided. There is no price information for any of the programs. (Programs are indexed by program type.)

COPYRIGHT INFORMATION

Many of the following copyrighted or trademark names are used in this document:

Name	Organization
Ada	U.S. Department of Defense Washington, D.C. USA
Apple	Apple Computer, Inc. 10260 Bandley Drive Cupertino, California 95014 USA
Atari	Atari, Inc. P.O. Box 62409 Sunnyvale, California 94086 USA
Color Computer PC-1 PC-2 TRS-80 TRS-80 I TRS-80 II TRS-80 III TRS-80 16	Tandy Corporation One Tandy Center Fort Worth, Texas 76102 USA
Commodore PET	Commodore Business Machines, Inc. 487 Devon Park Drive Wayne, Pennsylvania 19087 USA
CompuStar SuperBrain	Intertec Data Systems 2300 Broad River Road Columbia, S. Carolina 29210 USA
CP/M	Digital Research, Inc. P.O. Box 579 Pacific Grove, California 93950 USA
DAI	INDATA NV Rue de la Fusee 60 1130 Brussels Belgium
Dragon 32	Dragon Data, Ltd. Queensway Swansea Industrial Estate Swansea Glamorgan SA5 4EH England

Name	Organization
Heath	Heath Company Benton Harbor, Michigan 49022 USA
IBM PC	IBM P.O. Box 1328 Boca Raton, Florida 33432 USA
North Star	North Star, Inc. 14440 Catalina Street San Leandro, California 94577 USA
Osborne	Osborne Computer Corporation 26500 Corporate Avenue Hayward, California 94545 USA
OSI	Ohio Scientific 1333 S. Chillicothe Road Aurora, Ohio 44202 USA
Sinclair	Sinclair Research, Ltd. Stanhope Road Camberley Surrey GU15 3PS England
Source	Source Telecomputing Corporation 1616 Anderson Road McLean, Virginia 22102 USA
SuperCalc	SORCIM P.O. Box 32505 San Jose, California 95152 USA
TI 99/4A	Texas Instruments, Inc. 12501 N. Central Expressway Dallas, Texas 75222 USA
VisiCalc	VisiCorp, Inc. 2895 Zanker Road San Jose, California 95134 USA
Zenith	Zenith Data Systems 1000 Milwaukee Avenue Glenview, Illinois 60025 USA

MSU INTERNATIONAL DEVELOPMENT PAPERS

		Price
IDP No. 1	Carl K. Eicher and Doyle C. Baker, "Research on Agricultural Development in Sub-Saharan Africa: A Critical Survey," 1982, (346 pp.).	$8.00
IDP No. 2	Eric W. Crawford, "A Simulation Study of Constraints on Traditional Farming Systems in Northern Nigeria," 1982, (136 pp.).	$5.00
IDP No. 3	M. P. Collinson, "Farming Systems Research in Eastern Africa: The Experience of CIMMYT and Some National Agricultural Research Services, 1976-81," 1982, (67 pp.).	$4.00
IDP No. 4	Vincent Barrett, Gregory Lassiter, David Wilcock, Doyle Baker, and Eric Crawford, "Animal Traction in Eastern Upper Volta: A Technical, Economic, and Institutional Analysis," 1982, (132 pp.).	$5.00
IDP No. 5	John Strauss, "Socio-Economic Determinants of Food Consumption and Production in Rural Sierra Leone: Application of an Agricultural Household Model with Several Commodities," 1983, (91 pp.).	$5.00

MSU INTERNATIONAL DEVELOPMENT WORKING PAPERS

WP No. 1	Daniel Galt, Alvaro Diaz, Mario Contreras, Frank Peairs, Joshua Posner, and Franklin Rosales, "Farming Systems Research (FSR) in Honduras, 1977-81: A Case Study," 1982, (48 pp.).	$0.00
WP No. 2	Edouard K. Tapsoba, "Credit Agricole et Credit Informel dans la Region Orientale de Haute-Volta: Analyse Economique, Performance Institutionnelle et Implications en Matiere de Politique de Developpement Agricole," 1982, (125 pp.).	$0.00
WP No. 3	W. P. Strassman, "Employment and Construction: Multi-country Estimates of Costs and Substitution Elasticities for Small Dwellings," 1982, (48 pp.).	$0.00
WP No. 4	Donald C. Mead, "Sub-contracting in Rural Areas of Thailand," 1982, (52 pp.).	$0.00
WP No. 5	Michael T. Weber, James Pease, Warren Vincent, Eric W. Crawford, and Thomas Stilwell, "Microcomputers and Programmable Calculators for Agricultural Research in Developing Countries," 1983, (113 pp.).	$5.00
WP No. 6	Thomas C. Stilwell, "Periodicals for Microcomputers: An Annotated Bibliography," 1983, (70 pp.).	$4.00
WP No. 7	W. Paul Strassman, "Employment and Housing in Lima Peru," 1983, (96 pp.).	$0.00
WP No. 8	Carl K. Eicher, "Faire Face a la Crise Alimentarie de l'Afrique," 1983, (29 pp.).	$0.00
WP No. 9	Thomas C. Stilwell, "Software Directories for Micro-computers: An Annotated Bibliography," 1983, (14 pp.).	$3.00

Copies may be obtained from: MSU International Development Papers, Department of Agricultural Economics, Agriculture Hall, Michigan State University, East Lansing, Michigan, 48824-1039, U.S.A.   All orders must be prepaid in United States currency. Please do not send cash.   Make checks or money orders payable to Michigan State University. There is a 10% discount on all orders of 10 or more copies. Individuals and institutions in the Third World may receive single copies free of charge.